

88-1076A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jonathan L. Schuchardt : Group Art Unit: 1713

Serial No. 10/117,903 : Examiner: unknown

Filed: April 8, 2002 :

For: OLEFIN POLYMERIZATION CATALYSTS CONTAINING :
TRIQUINANE LIGANDS :

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)(1)

Sir:

Applicant submits here a list of references he believes are relevant to the examination of this patent application. The references are listed on accompanying form PTO-1449, and copies of the references are enclosed.

The Examiner should also be aware of copending Appl. Ser. Nos. 09/691,285, filed October 18, 2000, (attorney docket # 88-1028A) and 09/907,180, filed July 17, 2001, (attorney docket #88-1048A), which disclose related subject matter.

Applicant respectfully asks the Examiner to consider the cited references.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail, with sufficient postage, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on May 28, 2002.

Jonathan L. Schuchardt
Name of person signing

Jonathan L. Schuchardt
Signature

Respectfully submitted,

Jonathan L. Schuchardt

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May 28, 2002

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Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office Rev. 7/89	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Attorney Docket: 88-1076A</td> <td style="width: 50%;">Examiner: Unknown</td> </tr> <tr> <td>Serial No. 10/117,903</td> <td>Filing Date: April 8, 2002</td> </tr> </table>	Attorney Docket: 88-1076A	Examiner: Unknown	Serial No. 10/117,903	Filing Date: April 8, 2002		
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	FOR: Olefin Polymerization Catalysts Containing Triquinane Ligands	May 28, 2001					
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if appropriate
	AA	4,855,322	08/08/89	Kasha et al.	514	546	06/01/87
	AB	5,153,157	10/06/92	Hlatky et al.	502	117	03/20/90
	AC	5,198,401	03/30/93	Turner et al.	502	155	07/30/91
	AD	5,241,025	08/31/93	Hlatky et al.	526	129	10/02/92
	AE	5,414,180	05/09/95	Geerts et al.	585	525	07/14/93
	AF	5,637,660	06/10/97	Nagy et al.	526	160	04/17/95
	AG	5,648,440	07/15/97	Sugano et al.	526	132	03/01/95
	AH	6,211,311	04/03/01	Wang et al.	526	131	05/25/99
	AI						
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	AL						YES NO
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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Brookhart, <u>Chem. Rev.</u> 100 (2000) 1169.					
	AS	G. Mehta et al., <u>J. Am. Chem. Soc.</u> 108 (1986) 3443.					
	AT	R. Hutchins., <u>J. Org. Chem.</u> 40 (1975) 923.					
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	AR	G. Kabalka et al., <u>J. Org. Chem.</u> 41 (1976) 574.					
	AS	O. Dailey, Jr., <u>J. Org. Chem.</u> 52 (1987) 1984.					
	AT	Huang-Minlon, <u>J. Am. Chem. Soc.</u> 68 (1946) 2487.					
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	AR	Mehta et al., J. Am. Chem. Soc. 108 (1986) 3451.					
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Notice of References Cited

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10/117,903

Applicant(s)/Patent Under
Reexamination
SCHUCHARDT, JONATHAN L.

Examiner

Rip A. Lee

Art Unit

1713

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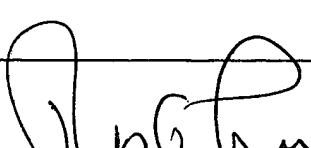
U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,544,918 B1	04-2003	Nagy et al.	502/103
	B	US-6,228,959 B1	05-2001	Nagy	526/134
	C	US-6,414,099 B1	07-2002	Hlatky et al.	526/161
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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